



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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Ref: 8EPR-N

Clarence W. Marsella, General Manager
Regional Transportation District
1560 Broadway, Suite 700
Denver, CO 80202-5140

Terry J. Rosapep, Regional Administrator
Federal Transit Administration, Region 8
4601 DTC Boulevard, Suite 700
Denver, CO 80237-2568

Re: East Corridor Commuter Rail from Downtown Denver
to Denver International Airport, FasTracks, Metropolitan
Denver: Draft Environmental Impact Statement (DEIS):
CEQ# 20090026

Dear Messrs. Marsella and Rosapep:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4231 et. seq., and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609, the U.S. Environmental Protection Agency Region 8 (EPA) has reviewed the East Corridor FasTracks Draft Environmental Impact Statement (DEIS). The East Corridor FasTracks was originally part of the I-70 East Corridor EIS under a joint effort between Regional Transportation District (RTD), Federal Transit Administration, Colorado Department of Transportation (CDOT), Federal Highway Administration (FHWA) and City and County of Denver (CCD).

The project area includes portions of Aurora, Adams County, and several Denver neighborhoods including Five Points, Lower Downtown, Whittier, Cole, Clayton, Globeville, Elyria and Swansea, Northeast Park Hill, Stapleton, Montbello, Green Valley Ranch, Gateway, and Denver International Airport. The East Corridor FasTracks project will serve as a critical rail and bus transit connection for this project area between downtown Denver and Denver International Airport, linking a regional and national transportation network. It will travel through business, residential and new development areas.

In June, 2006 the highway and transit elements of FasTracks were separated into two independent projects because they serve different travel markets, are located in different

corridors, have different funding sources, and meet the criteria for independent utility of NEPA. The East Corridor EIS FasTracks EIS is now conducted by RTD and the lead federal agency is FTA.

The alternatives analysis for this DEIS included a screening process which resulted in the No Action and the Preferred Alternative. The Preferred Alternative is comprised of double-tracked Electric Multiple Unit (EMU), heavier than commuter light rail and powered by electrical catenary system, between Denver Union Station (DUS) and DIA. The alignment follows the Union Pacific Railroad (UPRR) corridor between DUS and Airport Boulevard. This portion of the alignment uses a combination of UPRR right-of-way, private property, and shared CCD and Aurora right-of-way. At Airport Boulevard near Smith Road, the alignment heads north and then east to DIA within the Pena Transportation Corridor. In addition to the DUS and DIA stations, four other stations have been recommended. They include:

- 38th/Blake (formerly called 40th/40th)
- Colorado
- Central Park
- Peoria
- 40th/Airport

EPA's concerns and comments are focused on the relatively high presence of minority and low-income populations in neighborhoods in or adjacent to the study area that will be exposed to the short term construction impacts of this and other simultaneously occurring projects (e.g. I-70 East, Gold Line and the FasTracks maintenance facility construction) as well as high background exposure to Mobile Source Air Toxics (MSATs) from highway emissions. Consistent with Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," Federal agencies are required to identify and address, as appropriate, disproportionately high and adverse human health and environmental effects of their activities on minority and low-income populations. This DEIS has identified health and environmental impacts to minority and low-income populations in the study area as "potentially disproportionate" and has identified the need for construction mitigation and Best Management Practices (BMPs) which will be identified in the Record of Decision (ROD).

The FTA and RTD have committed to mitigating the impacts from construction resulting from this project. Your stated commitment to refine mitigation measures with stakeholders and regulatory agencies provides an opportunity to assure that mitigation best meets the needs of the affected communities. EPA recommends that the ROD include a summary and a discussion of how mitigation measures identified for the short-term construction impacts address the EJ community's concerns and identify any specifics regarding monitoring commitments and agency coordination.

We have also included comments that reflect our concerns with increased exposure of EJ communities to diesel construction, high background levels of Mobile Source Air Toxics (MSAT), and the need for greenhouse gas calculations for power utilized by commuter rail cars.

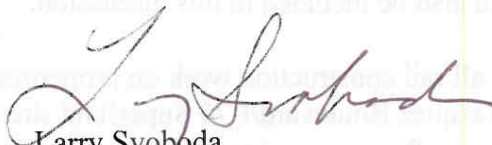
Finally, we note that the DEIS does not include a concise public participation summary of

the concerns, needs and preferences of the affected EJ communities although excellent work was done through scoping and an on-going public participation program. We recommend that FTA and RTD include such a summary and a discussion of how mitigation measures identified for the short- term construction impacts address these concerns.

Pursuant to EPA policy and guidance, EPA rates the environmental impact of an action and the adequacy of the NEPA analysis. EPA has rated the Preferred Alternative as "EC-2" (Environmental Concerns – Insufficient Information). The Environmental Concerns rating indicates that the EPA review identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts. The "2" rating indicates that the DEIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment. In this case, the BMPs and mitigation measures for short term (but potentially significant) construction air quality impacts on a minority and low-income population has not been comprehensively addressed in the DEIS. In addition, greenhouse gas calculations for power generated remotely from the electric commuter rail should also be analyzed. An explanation of these information needs are contained in the attached comments by resource area of concern. An explanation of the rating criteria is enclosed.

We appreciate the opportunity to comment on the DEIS and look forward to working with you to resolve the issues raised in our detailed comments. If you have any questions or would like to discuss our comments, please contact me at (303) 312-6004 or Robin Coursen of my staff at (303) 312-6695.

Sincerely,



Larry Svoboda
Director, NEPA Program
Office of Ecosystems Protection and Remediation

Enclosure

**EPA COMMENTS
EAST CORRIDOR COMMUTER RAIL
DRAFT ENVIRONMENTAL IMPACT STATEMENT**

General Comments

We commend the work that FTA and RTD have done to address potential impacts on the EJ communities in this project area and we recognize that the long term impacts of Electrical Multiple Units (EMUs) commuter rail on these communities will result in improved air quality, sustainable development and economic opportunities for these communities. Our concerns are focused primarily on the short term construction impacts of this project that, when factored together with several other (simultaneously occurring) highway and transit construction projects as well as high background exposure to MSATs from highway emissions, may result in significant impacts to minority and low income communities in the project area. EPA recommends that a best estimate timeline for construction of all anticipated highway and transit projects in the EJ communities be developed to disclose the magnitude of potential construction impacts on these communities.

Environmental Justice

- EPA recommends that the ROD identify all BMPs for construction-related activities associated with the impacts to the EJ communities. In addition, we recommend that the ROD include a discussion of how FTA and RTD will assure that mitigation measures are in fact reducing diesel emissions and fugitive dust to acceptable levels. Any monitoring proposed should also be included in this discussion.
- EPA notes that all rail construction work on properties potentially contaminated by Globeville or Vasquez Boulevard/I-70 Superfund sites must go through the CDPHE Voluntary Clean-up Program review process. In addition, we recommend that the EPA Superfund contact person, Sam Garcia, also be contacted before this construction begins. Mr. Garcia can be reached at (303) 312-6247.
- EPA recommends that the FEIS include a concise summary of the concerns, needs and preferences of the EJ community that was gleaned from the public participation process. We further recommend that FTA and RTD include a discussion of how mitigation measures identified for the project impacts address these community concerns.

Mitigation Recommendations

- Due to the relatively high presence of minority and low-income populations in neighborhoods in or adjacent to the study area that will be exposed to the short term construction impacts of this and other simultaneously occurring projects (e.g. I-70 East, Gold Line and the FasTracks maintenance facility construction), EPA recommends additional construction diesel emissions mitigation for both PM₁₀ and MSAT impacts.

We note FTA and RTD commitments in this document to refine mitigation measures with stakeholders and regulatory agencies which provide assurance that mitigation will best meet the needs of the affected communities. EPA recommends that the ROD include a summary and a discussion of how mitigation measures identified for the short-term construction impacts address the EJ community's concerns and identify specifics regarding monitoring commitments and agency coordination.

- For MSATs, many of the suggested mitigation measures that will reduce PM₁₀ will also reduce MSAT exposure. These are mostly geared to construction air quality impacts. There may be opportunities to be more creative with mitigation measures. The affected communities should be consulted, and EPA is available to participate as a partner with the community to assist in the identification of mitigation measures to reduce impacts.
- EPA recommends that the ROD include a summary and a discussion of how mitigation measures identified for the short-term construction impacts address the EJ community's concerns and identify any specifics regarding monitoring commitments and agency coordination.
- Pg. 3.8-8, under Temporary Construction Impacts: This paragraph should also discuss that in addition to fugitive dust PM₁₀ emissions, there will also be emissions of Carbon Monoxide (CO), Nitrogen Oxides (NO_x), Volatile Organic Carbons (VOCs), Particulate Matter (PM_{2.5}), and MSATs from the on-road and non-road gasoline and diesel engines associated with the construction equipment. Temporary construction impacts of diesel emissions and dust should be considered since this project's construction period may coincide with that of the other anticipated and possibly concurrent projects (e.g. I-70 East Corridor, Gold Line, and the Maintenance Facility). The monitoring plan for PM₁₀ emissions should address how the monitoring will be performed, identify action levels for the monitored data, and how the data will be shared with the appropriate Agencies and the community.
- An air monitoring program to alert for PM₁₀ exceedances near residences and schools within 50 meters of construction could inform mitigation success or additional mitigation needs. Adoption of the proposed Construction Emissions Mitigation Plan (CEMP) will ensure that procedures for implementation of mitigation measures are adequately defined (such as BMPs, Best Available Control Technology, scheduling, fuel usage, idling, maintenance, construction materials used). EPA recommends that construction BMPs and the CEMP be available for continued public review and input as well as for further Agency consideration and coordination after the ROD is published.
- Pg. 3.8-10, Section 3.8.1.3 Mitigation, Table 3.8-5: The mitigation list for MSATs could also include:
 - Requiring heavy construction equipment to use the cleanest available engines or to be retrofitted with diesel particulate control technology (note: this potential mitigation measure was included with the FHWA I-70 East DEIS and would also be suitable for the FasTracks East Corridor project.)

- Require diesel retrofit of construction vehicle engines and equipment as appropriate.
- Use alternatives for diesel engines and/or diesel fuels such as: biodiesel, Liquified Natural Gas (LNG) or Compressed Natural Gas (CNG), fuel cells, and electric engines.
- For winter time construction; install engine pre-heater devices to eliminate unnecessary idling.
- Prohibit tampering with equipment to increase horsepower or to defeat emission control devices effectiveness.
- Require construction vehicle engines to be properly tuned and maintained.
- Use construction vehicles and equipment with the minimum practical engine size for the intended job.
- Add points in evaluating bids for contractors who use diesel-powered equipment which meets the 2010 off-road diesel emissions standards.

Resource Impacts

Air Quality:

NAAQS

- Pg. 3.8-1, Section 3.8.1 The last paragraph on this page, second sentence, states that consideration of the National Ambient Air Quality Standards (NAAQS) will be limited to only CO, ozone, and PM₁₀ because Denver has been previously classified as either nonattainment and subsequently maintenance for these NAAQS. EPA recommends that in addition, PM_{2.5} also be considered as PM_{2.5} is an exhaust component from engines associated with on-road motor vehicles and in particular from diesel engines which would include both on-road and non-road construction equipment used for this project.
- Pg. 3.8-3, Section 3.8.1.1. The second full paragraph on this page – EPA recommends that this paragraph be revised to discuss the designation of the Denver-metropolitan and North Front Range area as a nonattainment area and the resulting attainment plan. This nonattainment designation was a result of a violation of the federal 1997 8-hour 0.080 parts per million (ppm) ozone standard and the nonattainment designation was Federally-effective on November 20, 2007. A detailed plan to reduce ozone has been developed by the Colorado Air Pollution Control Division, along with the Regional Air Quality Council, Denver Regional Council of Governments, and the North Front Range Metropolitan Planning Organization. The resulting attainment plan was submitted by the Regional Air Quality Council to the Colorado Air Quality Control Commission and was approved on December 12, 2008, with legislative review expected in early 2009, and as per Court settlement, submitted to EPA by not later than July 1, 2009. The plan will require further reductions on ozone levels beyond what was previously required.

MSATS

- Pg. 3.8-5, Section 3.8.1.1 Table 3.8-2,: This table should be expanded to include air monitoring data from 2007 as these data have been quality assured, certified by the State of Colorado, and are currently available. A discussion of the monitoring data would assist the public's understanding of the air quality within the vicinity of the project. For example, the data from the CAMP station indicates an increasing trend in both 8-hour

ozone values and 24-hour maximum PM₁₀ values, with 24-hour PM_{2.5} values also elevated. In addition, the 24-hour PM_{2.5} values at the National Jewish Hospital monitor show an increasing trend. As noted above, PM_{2.5} emissions are associated with both on-road and non-road diesel construction equipment.

- Pg. 3.8-5, Section 3.8.1.1 Mobile Sources Air Toxics (MSAT) section: For specific information regarding MSAT, the reader of this document is referred to the Technical Report for Air Quality for the DEIS. Only a limited discussion of MSATs was provided in the Technical Report for Air Quality. EPA recommends that the FEIS include additional discussion regarding MSATs associated with emissions from both on-road and non-road vehicles and engines during the construction phase of the project. We have elaborated on this further below.
- EPA notes that air toxics are defined as pollutants in the air that are known or suspected to cause cancer or other serious health effects, such as respiratory, neurological, reproductive, and developmental effects. MSATs are usually the largest source of air toxics of concern in urban areas. Emissions from mobile sources typically occur near the ground and are not particularly buoyant. Therefore, the largest impacts of these emissions tend to occur at receptors close to the source. A large number of studies have examined the association between living near major roads and different adverse health endpoints. Recent modeling and monitoring studies have confirmed that air toxics emissions from mobile sources remain drivers of overall air toxics risks. See, for example, see South Coast Air Quality Management District's Multiple Air Toxics Exposure Study III (or the MATES III study, www.aqmd.gov/prdas/matesIII/matesIII.html). For additional information on MSATs, please see EPA's MSAT website, www.epa.gov/otaq/toxics.htm. The likelihood of MSAT impacts and whether MSATs should be analyzed in an EIS is based on the magnitude of the project, the proximity of sensitive receptors, and how alternatives will change these impacts.

We note that the Technical Report on Air Quality's MSAT section contains language similar to that from FHWA's Interim Guidance on MSATs, with which EPA has consistently disagreed. FHWA issued an interim guidance on MSATs in February 2006. While there are positive elements of this interim guidance, EPA, nationally, disagrees with major pieces of the approach taken in this interim guidance, as well as much of the specific language used in the guidance. The Technical Report states in the first paragraph on page 9 that "Limitations with the existing modeling tools prevent performing the same level of analysis that is typically performed for other pollutants such as CO." While there are areas of uncertainty with any model, EPA believes that there are analytical tools available that yield credible and meaningful information for the decision-making process.

We acknowledge that this project involves the construction of a commuter rail line; however, we note that EPA's Office of Transportation and Air Quality (OTAQ) has developed the document "*Modeling Ambient Air Toxics from Transportation Projects*" which contains a technical description of air toxics analysis tools and methods for highway projects, information that may also prove relevant for the construction phases of

this project.

Vehicle Miles Travelled (VMT)

Pg. 3.8-6, Section 3.8.1.2 Environmental Consequences, Section 3.8.1.2.2 Preferred Alternative, Table 3.8.3: This table should be expanded to present comparison of regional VMT data from a reasonably current time to 2030 so that trends in VMT are available. The Denver Regional Council of Governments (DRCOG) Regional Transportation 2030 “Metro Vision Plan” is referenced on page 3.8-4 (and page S-6) and it contains historical, current, and future VMT data. We note that the I-70 East DEIS (dated November, 2008), which is currently under review by EPA and the public, presents VMT data for 2001, 2010, 2020, and 2030. EPA believes these years would also be suitable for displaying VMT trends for the FasTracks East DEIS Table 3.8-3.

Greenhouse Gases

Pg. 3.8-8, Indirect Impacts: It is stated in the third sentence that “A realistic quantification of the impacts cannot be accomplished.” EPA disagrees with this conclusion. The EPA web-links below can be used to estimate greenhouse gas emissions associated with the electric power used by the EMUs. By estimating the Megawatt Hours MWh or Gigawatt Hours (GWh) electricity usage of the EMUs and utilizing the data link for the Rocky Mountain Power Area (Western Electric Coordinating Council-Rockies) below, estimates of emissions of individual greenhouse gases, including CO₂, Methane, and NO_x emissions, can also be prepared. EPA recommends that the FEIS include a summary of greenhouse gas emissions resulting from the calculated energy consumption on page 3.8-12 for both the no action and the action alternatives. We recognize that the power facility responsible for the energy used by these trains would be required to report their overall greenhouse gas emissions. However, for the purposes of disclosure of indirect impacts of greenhouse gases resulting from this project, these emissions should be calculated and reported.

<http://www.epa.gov/cleanenergy/energy-resources/calculator.html>

http://www.epa.gov/cleanenergy/documents/egridzipseGRID2007V1_1_year05_GHGOutputRates.pdf

Energy Consumption

Pg. 3.8-11, Section 3.8.2 Energy, section 3.8.2.1 Affected Environment, third paragraph: This paragraph indicates that 2007 information was referenced from the U.S. DOE “Transportation Energy Data Book”, but that RTD data from 2005 were used. In reviewing Section 4 “Transportation Systems,” EPA notes that 2008 RTD data are presented. If more recent data are available, they should be used in Section 3.8.2.1 instead of the 2005 RTD data.

Technical Edits

- Pg. 3.8-3, Section 3.8.1.1 Table 3.8-1, the Pb (Lead) NAAQS: The Pb NAAQS was revised on November 12, 2008 (see 73 FR 66964) and was tightened from 1.5 µg/m³ to 0.15 µg/m³. In addition, the averaging time was changed to a rolling three-month time frame. Please update the table to address changes.

- *Technical Report-Air Quality*

“Technical Report – Air Quality for the East Corridor EIS” (dated January, 2009),
General comment: Except for the specific language regarding MSATs, all the above air quality comments also apply to the Technical Report - Air Quality as the background discussion, tables, air quality information, data regarding the NAAQS, etc. are the same as presented in the DEIS.

Water Resources

Storm Water

- Parking lot designs in the East Corridor project are subject to Municipal Separate Storm Sewer System (MS4) new development planning procedures. Aurora has numeric criteria for new development associated with their Phase 1 MS4 permit. Design and review to meet numeric standards for detention/infiltration of runoff is required under the Aurora MS4 permit.
- Utilizing Low Impact Development (LID) designs for parking areas could produce a more aesthetically pleasing area which more closely mimics natural hydrologic conditions, reduces heat island effect, and meets MS4 criteria for new development. LID techniques for parking lots would eliminate expansive impervious areas that drain to a limited number of catch basins which create large volumes of high velocity water requiring the use of more underground pipes and land for large detention structures. Potential considerations for LID designs for parking areas include bio-infiltration cul-de-sac islands at “kiss n’ ride” drop off locations, parking areas separated by vegetated swales or tree islands with sumps to convey runoff into bio-retention areas, and permeable pavers for overflow parking at the periphery of the lots.

Surface Water

- The DEIS provides an accurate 303(d) listing overview of the potentially affected segments of the South Platte River and Sand Creek. However, the contaminants of specific interest are *E. coli* and selenium; these concerns are further elaborated upon in the following discussion. South Platte segment 15 (COSPUS15) is considered impaired for *E. coli* and segment 14 (COSPUS14) has a completed Total Maximum Daily Load (TMDL) for *E. coli*. Sand Creek segment 16a (COSPUS16a) is considered impaired for selenium and *E. coli*. Segment 14 is no longer included on the 303(d) list because it has an approved TMDL; however, the presence of an approved TMDL does not presume that it is now attaining its water quality standard. In the Colorado Department of Public Health and the Environment’s 2008 305(b) Report, segment 14 was listed in category 4a indicating that its recreational use is currently impaired for *E. coli* but that a TMDL has been completed for the segment. Figure 3.11-3 indicates that segment 14 is not impaired and this should be corrected or clarified.

- As demonstrated by the 303(d) listings for the segments of concern for this EIS, *E. coli* and selenium are contaminants of particular interest in these segments. Driscoll modeling was performed to determine potential increases in contaminant loading to the affected segments for lead, copper, zinc, phosphorus, and total suspended solids. Neither *E. coli* nor selenium was included in the modeling analysis and no estimated annual loading increase is provided for either of them. The EIS should address the potential for increased loading of these contaminants into the affected segments and quantify those expected increases as was provided for the other contaminants listed above. In addition, the EIS should clearly address whether the planned BMPs/mitigation measures will likely reduce *E. coli* and selenium loads and quantify expected reductions. This will allow the reader/evaluator to understand whether or not the preferred alternative implementation will cause or contribute to the *E. coli* and selenium impairments in the affected segments.
- It would be helpful if the EIS provided a rationale for the selection of the contaminants chosen for the Driscoll modeling listed above and explained why other contaminants such as oil and grease that are typically associated with run-off from impervious road surfaces were not included.
- South Platte segment 14's *E. coli* TMDL (EPA TMDL document ID 34532) established a waste load allocation of 126 CFU/ 100 ml of *E. coli* for each MS4 permit associated with segment 14. As future *E. coli* TMDLs for segments 15 and 16a will likely follow suit, the EIS should discuss the MS4 requirements for segment 14 and ensure that BMPs associated with MS4 discharges into segments 14, 15 and 16a are consistent with the segment 14 TMDL requirements.
- For the preferred alternative, a significant increase in overall loading for lead, copper, zinc, phosphorus, and total suspended solids was projected for Sand Creek (527% increase) with a smaller increase in overall loading for these contaminants projected for the South Platte segments (3.5%). The EIS analysis should address whether or not these load increases with the projected mitigation reductions are likely to result in exceedances of water quality criteria for the modeled pollutants and hence result in impairment of segments 14, 15, and 16a based upon current ambient water quality conditions in the segments.